

Living with a Star Program Education and Outreach effort

1.0 INTRODUCTION AND PROJECT OVERVIEW

NASA's Living with a Star (LWS) Program represents a significant opportunity for ground breaking public/educational outreach in the fields of solar science, information technology, engineering studies and the solar system. This project is part of NASA's office of Space Science (OSS) Sun-Earth Connection (SEC) Theme, whose primary goal is "to understand our changing Sun and its effects on the Solar System, life and society." The LWS program constitutes an ambitious in-depth look at space weather and solar science with implications for improving life on Earth, space exploration and vastly increasing our understanding of star system processes.

The SEC strategy for understanding the Sun-Earth system is organized around four primary Quests. Each Quest focuses on one specific element but the questions are

1. Why Does the Sun Vary?
2. How Do the Planets Respond to Solar Variability?
3. How Do the Sun and Galaxy Interact?
4. How Does Solar Variability Affect Life and Society?

The LWS program investigates all of these aspects with an innovative array of missions that address important gaps in our current understanding of solar science.

2.0 LWS Program Education and Public Outreach Overview

The LWS Program Office will make every effort to initiate programs that adhere to Education and Public Outreach (EPO) guidelines set forth by OSS. This includes EPO efforts for formal and informal education and public outreach. The LWS program will promote excellence in science, mathematics, engineering, and technology education through direct involvement in partnerships, workshops, internships, and as participants/observers. Most programs lend themselves to nationwide participation with special emphasis on serving groups historically underrepresented in space sciences.

The LWS Program represents a unique opportunity to involve both the public and the educational community in an important long-term program that will investigate complex science issues, the results of which affect each and everyone of us in our daily lives. The Sun is the engine that drives our solar system, fuels our planet, and has created an environment conducive to the evolution of life. In addition, each of the LWS missions involves significant advances in information technology systems and their use in space science. As technology advances the public, educational institutions and science facilities will be able to utilize the LWS mission data to enhance their knowledge and programs.

The main goal of the LWS Education and Public Outreach program is to provide the tools and means necessary to enhance public awareness and knowledge of the Sun, its affect on the Earth, and consequently its affect on all aspects of human life, and to communicate the realization that the Sun-Earth connection is vital to the continuance and quality of their future.

3.0 LWS Program EPO Architecture

The LWS program has developed a multi-tiered level of support for the accomplishment of its EPO efforts. This approach incorporates a comprehensive and unified structure, with emphasis on outreach efforts at both the program and mission levels. The LWS program EPO Coordinator has oversight responsibilities of the EPO program, including coordination of the mission level efforts, education outreach endeavors and to insure quality and consistency of the program. The primary focus of the program level EPO is formal and informal educational development.

3.1 Mission/Project EPO efforts

Each of the LWS missions, including the Solar Dynamic Observatory will implement an Education and Public Outreach program. To facilitate the coordination effort each Principal Investigator will designate a single point of contact responsible for EPO activities. These persons will collaborate with mission scientists and engineers to generate EPO products pertinent to their mission's science and to promote visibility of their mission with the general public. The mission coordinator will work closely with the program level EPO coordinator to share resources and avoid duplication of effort. Emphasis for outreach efforts at both the program and mission levels will include a variety of traditional materials such as, CD-ROMs and videos that will inspire and inform. Traditional avenues of conference and public event participation, dissemination of information through schools, teacher workshops, and pre-service programs will be pursued.

3.3 Coordination with NASA OSS

Close cooperation between LWS Program Education and Public Outreach effort and NASA's OSS activities is imperative to ensure maximum effectiveness and consistency. The LWS Program staff at GSFC will provide the support to coordinate the efforts between the missions, NASA Headquarters and GSFC.